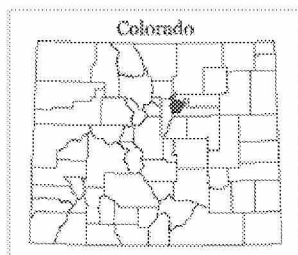


Superfund Program

Vasquez Boulevard & I-70



Site Type: Final NPL
City: Denver
County: Denver
Street Address: Vasquez Blvd. & I-70 boundary area
ZIP Code: 80216
EPA ID: COD002259588
SSID: 089R
Site Aliases: Argo Smelter, Omaha and Grant Smelter, Vasquez Blvd. & I-70 (North Residential Soils)
Congressional District: 1

National Information
<ul style="list-style-type: none">• Superfund• Cleanup Process• Community Involvement• Superfund News

Regional Information
<ul style="list-style-type: none">• Superfund Basics• R8 Superfund Sites• Regional Response Teams• Site Assessment• Risk Assessment• Five-Year Reviews• Public Liaison• Superfund Contacts

What's New?

Updated June 2013

Operable Unit 1 Residential Soils: In 2012/2013, EPA embarked on a renewed outreach effort to gain access from property owners to sample and/or cleanup the last remaining properties within the VB/I-70 site boundaries. The renewed outreach efforts resulted in many new access agreements, which helped EPA identify about 15 additional properties that require a cleanup to be conducted this summer. However, EPA is still not able to sample or cleanup about 100 properties because the property owner has not granted EPA access. This is approximately two percent of the total number of residential properties within the VB/I-70 boundaries, which includes more than 4,500 homes. EPA's goal is to complete the remedy at VB/I-70 and to lift the Superfund designation from the neighborhoods. To do so, EPA must ensure that there is a protective remedy in place for all residential properties within the boundaries. Therefore, EPA intends to implement protective measures at the 100 or so properties where the agency cannot obtain access to sample or cleanup from the property owner. These measures, called institutional controls, include recording an informational notice in the property file [at the City of Denver Clerk and Recorder's Office](#) and mailing an annual letter to the property owner and, if the property is a rental, the tenant. This will result in a remedy that is protective for all residential properties within the site.

Site Information
<ul style="list-style-type: none">• What's New?• Site Description• Site Risk• Cleanup Progress• Community Involvement• Reuse• Land Use Controls• Five-Year Reviews• Site Documents• Contacts• Photo/Video Gallery• Links

National Priorities List (NPL)
History
Proposed Date 1/19/1999
Final Date 7/22/1999

EPA coordinated closely with the Colorado Department of Public Health and Environment, the Denver Department of Environmental Health, and briefed city councilors to discuss the need for institutional controls and the shape they should take. The institutional controls strike a balance between respecting the property owner's decision not to participate in the sampling and cleanup effort and alerting prospective buyers about known or potential environmental contamination at the property. These measures will also allow the EPA to declare the remedy protective of human health and the environment at every residential property within the site boundary and to remove the Superfund designation from the neighborhoods. EPA anticipates that all sampling and cleanup where

new access agreements could be obtained will be concluded by mid to late summer and the institutional controls at the remaining properties will be in place by the end of 2013.

Operable Unit 2 Omaha and Grant Smelter: EPA is currently offering a Technical Assistance Grant (TAG) to a community group for Operable Unit 2, the Omaha and Grant Smelter site. A TAG provides money for activities that help the community participate in decision-making at eligible Superfund sites. Grant recipients can contract with independent technical advisors to interpret technical information about the site. For more information, contact Linda Armer (armer.linda@epa.gov), U.S. EPA, Region 8, 1595 Wynkoop Street (8EPR-PS), Denver, CO 80202-1129, 303-312-6696 or Jennifer Chergo (chergo.jennifer@epa.gov) at 303-312-6601.

Commented [P1]: Jennifer – This is no longer the case. I recently checked with Linda Armer and there is no TAG for OU2. We don't really have anything new at this OU at the moment. – Its activities are summarized below.

Operable Unit 3 Argo Smelter: EPA is continuing investigations to evaluate if smelter-generated wastes were buried on the site and whether they pose a health risk to future workers or groundwater.

Top of Page

Site Description

The VB/I-70 Superfund site is an area of approximately four square miles located in north-central Denver. Historically, this area was a major smelting center for the Rocky Mountain West. Three smelting plants—Omaha & Grant, Argo and Globe—operated in the area for varying lengths of time, beginning as early as 1870, refining gold, silver, copper, lead and zinc.

On January 19, 1999, the Vasquez Boulevard & I-70 site was proposed for the EPA Superfund National Priorities List (NPL). Including the site on the NPL assures EPA access to cleanup funding through the Superfund program if responsible parties fail to clean up the site adequately. Listing also guarantees the public an opportunity to participate in cleanup decisions.

Commented [P2]: When was it finalized on the NPL? July 22, 1999.

Top of Page

Site Risk

The site risks for OU1 are summarized in the following table. Site risks for OU2 and OU3 are currently being studied.

Media Affected	Contaminants	Source of Contamination
soils	lead and arsenic	smelting operations and/or other sources

Top of Page

Cleanup Progress

EPA is the lead agency for Superfund activities at the site and works cooperatively with the support agency, the Colorado Department of Public Health and the Environment (CDPHE). VB/I-70 was divided into three Operable Units (OUs) for the purposes of better managing the project. The OUs are:

- OU1 Residential Soils
- OU2 Omaha and Grant Smelter
- OU3 Argo Smelter

View a map of the Vasquez Blvd. & I-70 Superfund Site boundaries (PDF, 1 pg, 262K, about PDF)

OU1 focuses on **residential soils** and includes all or parts of the following north Denver neighborhoods: Cole, Clayton, Swansea, Elyria, and a small section of Curtis Park. EPA and the CDPHE began investigating these residential yards in 1998 to determine if arsenic, lead, cadmium or zinc residues from past smelting operations posed a potential threat to the health of residents. The investigation showed that lead and arsenic were the heavy metals of concern and sampling results showed elevated lead and arsenic concentrations in some yards. A large-scale residential soils investigation ensued.

During the investigation, which began in the summer of 2000, EPA took 30 soil samples at each of the residential yards sampled within the VB/I-70 boundaries. From 2003 through 2006, EPA carried out a vast residential soils sampling and cleanup project encompassing more than four square miles and more than 4,500 properties. By 2006, EPA had sampled more than 4,300 yards

In May 2002, EPA released a proposed plan outlining its preferred cleanup option. Due to extensive public comments requesting EPA to lower the soil concentration cleanup levels, EPA developed a new cleanup alternative. This alternative proposed to clean up soils that exceed lead concentrations of 400 ppm (parts per million) or arsenic concentrations of 70 ppm. A revised proposed plan, which included this alternative, was issued for public review in May 2003. A Record of Decision (ROD), including a Responsiveness Summary detailing EPA's final cleanup decision, was issued on September 25, 2003.

From 2003 through 2006, EPA carried out a vast residential soils sampling and cleanup project encompassing more than four square miles and more than 4,500 properties. By 2006, EPA had sampled more than 4,300 yards and had removed, replaced and re-landscaped more than 800 yards because sampling results revealed lead and/or arsenic contamination. EPA performed a cleanup at more than 800 yards where contaminated soil was removed, replaced with clean soil and then re-landscaped. During the process, EPA removed more than 91,000 cubic yards of soil and planted more than 1.5 million square feet of sod, as well as alternative landscaping materials.

This Superfund project also included innovative features such as a unique lead paint abatement program and a community-based Community Health Program. The Community Health Program was intended to raise awareness in the community about lead and arsenic hazards and was designed to complement the soil cleanups. The Community Health Program was a unique program designed by local, federal and state government representatives and committed community leaders. The City of Denver administered the program, which included door-to-door visits from community members trained to provide education to area residents on the hazards of lead, arsenic and a range of other environmentally-related topics. The program provided opportunities for parents to have their children tested for lead or arsenic exposure. The Community Health Program concluded in 2008.

In 2009, EPA conducted a five-year review of the remedy at VB/I-70. Based on the results of its review, EPA determined that the remedy at OU1 was not protective of human health because there were still approximately 180

properties where EPA was never able to gain access from the property owner to either sample or clean up. The Five-Year Review Report recommended implementing institutional controls at the remaining properties to ensure the remedy was protective for every property. Institutional controls are administrative or legal controls that help reduce the likelihood for human exposure to contamination. EPA determined that as many as 50 percent of the properties had changed owners since the previous sampling and cleanup effort had ended in 2006. EPA recognized that it would be unjust to place institutional controls on properties at which the owners were new and would not have had the opportunity during the earlier remedial action to give EPA access to sample or cleanup their property. As a result, in 2012/2013, EPA embarked on a renewed outreach effort to all of the 180 or so remaining properties, whether they had new owners or not, giving the property owners another chance to have their property either sampled or cleaned up. EPA's outreach efforts resulted in about 75 new access agreements received in 2012/2013. Of those, EPA identified approximately 15 properties that will require cleanup, to be conducted this summer. Still, despite various attempts, about 100 properties remain with potential or known contamination because the property owners continue to ignore or deny EPA requests for access. The property owners who decline or ignore this final opportunity will be subject to institutional controls on their property, as described in the "What's New" Section of this Webpage above.

OU2 is the area where the **Omaha and Grant Smelter** was located. EPA is concerned that wastes generated from the former smelter operation may still exist and may impact the groundwater or be a health concern. The EPA, CDPHE and City of Denver continue to work together to investigate potential heavy metal contamination in the soils, groundwater, surface water and sediments at and adjacent to the site. The site is located approximately where the Denver Coliseum stands today.

OU3 is the area where the **Argo Smelter** operated. The former smelter buildings have been demolished and the area has been redeveloped. EPA is investigating to evaluate if smelter generated wastes were buried on the site and whether they pose a health risk to future construction workers or groundwater. EPA and CDPHE completed an RI/FS. In November 2007, EPA released a proposed plan outlining its preferred cleanup option. In December 2007, EPA held a public meeting to discuss the proposed cleanup option and other alternatives. Based on comments received, EPA and CDPHE determined that further investigation was warranted. Therefore, investigations are continuing in order to evaluate if smelter-generated wastes were buried on the site and whether they pose a health risk to future workers or groundwater. EPA and CDPHE will release a proposed plan and provide an opportunity for further public review and comment in the future.

Top of Page

Community Involvement

Community involvement plays an important role in the Superfund process. EPA uses a number of different tools and resources to promote effective, on-going, meaningful community involvement. The goals of the Superfund community involvement program are to:

- Keep communities affected by sites informed throughout the cleanup process.
- Provide opportunities for communities to comment and offer their input about site cleanup plans.
- Facilitate the resolution of community issues tied to a site.

EPA recognizes that community involvement at VB/I-70 is important for achieving a successful environmental cleanup. The final cleanup plan at VB/I-70's OU1 was developed with extensive community and agency involvement. From 1999 to 2006, a group of committed community and agency stakeholders met together in a working group to gain information and provide input on the residential soils cleanup plan. EPA twice awarded a technical assistance

grant to an area community group, CEASE, whose members came together specifically to participate in the cleanup process for VB/I-70. EPA produced and distributed numerous fact sheets, fliers, and postcards to advertise meetings and to update the community on the VB/I-70 residential yards cleanup. In addition, EPA participated in and presented at a number of neighborhood organization meetings, neighborhood fairs and picnics, parent-teacher meetings at schools, adult education classes and other community gatherings. EPA also hosted a number of public meetings, availability sessions and open houses.

More recently, during the 2012/2013 renewed outreach effort, EPA focused less on widespread community involvement and targeted its efforts toward those property owners of properties that had never been sampled or cleaned up. In attempting to gain access to these properties, EPA was greatly assisted by local elected officials and residents. EPA mailed letters to the property owners and conducted a door-to-door effort in order to contact them about access to their property. Some of the EPA staff involved in that effort were also residents of the Clayton neighborhood. Further, EPA enlisted the assistance of a former resident of Swansea/Elyria neighborhood and former Community Health Worker to also go door-to-door and attempt to contact property owners about access to their properties. The local non-profit group Groundwork Denver has been very generous to EPA by providing local community information. EPA is particularly appreciative of Denver City Councilman Albus Brooks' office and his staff's assistance with the door-to-door effort as well. Further, Denver City Councilor Albus Brooks and Denver City Councilor Judy Montero both offered assistance in helping EPA connect with property owners who continued to ignore or deny EPA requests for access. All of these by local elected officials and resident volunteers are very much appreciated and have positively impacted the sampling and cleanup effort.

Top of Page

Reuse

EPA places a high priority on land reuse as part of its Superfund response program mission. The agency tries to select cleanup options that encourage and support future use of a site. EPA uses two fundamental methods to facilitate reuse of Superfund sites:

- Exploring future uses before the cleanup remedy is implemented, an approach that gives the Agency the best chance of designing cleanup remedies to support the likely future use of a site.
- Working with landowners and communities to remove barriers not considered necessary for the protection of human health or the environment at those sites where remedies are already in place.

One option for reuse is the siting of clean and renewable energy projects on contaminated (or formerly contaminated) lands. As part of this effort, EPA is evaluating the potential for energy projects on these properties and working with landowners and communities to identify ways to remove barriers to such projects.

OU1 is in continued use as residential neighborhoods.

Top of Page

Land Use Controls and Other Institutional Controls

Land use controls are the most common type of institutional control (IC). ICs are administrative or legal controls that help reduce the likelihood for human exposure to contamination. ICs can also help protect the integrity of the remedy. Examples of ICs are:

- Zoning ordinances.
- Environmental covenants.
- Deed notices.
- Well-drilling restrictions.
- Building permits.
- Informational advisories.

ICs are typically developed during the RI/FS process, as needed, as a part of the proposed alternatives. At VB/I-70 OU1, the Record of Decision did not discuss institutional controls, and none were implemented after the 2003–2006 remedial action. A 2009 EPA Five-Year Review Report concluded that the remedy was not protective for all properties at VB/I-70 because institutional controls were not implemented where EPA could not gain access from property owners to sample or cleanup their property. Therefore, in 2013, after a renewed outreach effort to gain access from property owners at these few remaining properties, EPA intends on implementing institutional controls to ensure the remedy is protective at every property. The vast majority of properties, more than 4,300 residences, have been sampled, and about 800 of them have required a cleanup. The institutional controls will not apply to those properties. The institutional controls will apply to about 100 properties that EPA has not gained access to sample or clean up from the property owner. The Institutional controls will apply only to those few remaining properties where EPA has not been able to gain access to sample or cleanup. EPA anticipates the institutional controls will be implemented by the end of 2013. The institutional controls will include:

- An annual mailing to owners and residents of the property informing them of the potential or known contamination.
- Recording a notice of environmental conditions in the property file at the Clerk and Recorder's office of the City and County of Denver to alert future potential buyers of the known or potential contamination before they purchase a property.

Top of Page

Five-Year Reviews

EPA or the lead agency conducts five-year reviews following the start of a Superfund cleanup when contamination is left on the site. These reviews are repeated every five years. We use these reviews to determine:

- How the remedy is working.
- If the remedy remains protective of human health and the environment.

The first five-year review was conducted in 2009 with a status update in 2010. (link to documents) The second five-year review will be conducted no later than 2014.

Top of Page

Site Documents

Note: Best way to open a **very large document**: right click and **save it to a file**.

OU1 – Residential Soils

You will need Adobe Acrobat Reader to view some of the files on this page. See EPA's PDF page to learn more.

Site Update Fact Sheet, June 2012 (PDF, 2 pp, xxK)

Update to the Five-Year Review, November 2010 (PDF, 1 pg, 30K)

First Five-Year Review Report, September 30, 2009 (PDF, 25 pp, 614K)

Post Construction Fact Sheet, Fall 2006 (PDF, 2 pp, 116K)

External Lead-Based Paint Fact Sheet, Fall 2006 (PDF, 2 pp, 93K)

Site Update Fact Sheet, April 2006 (PDF, 1 pg, 235K)

Hoja de Hechos, April 2006 (PDF, 1 pg, 236K)

OU2 – former Omaha Grant Smelter location

OU2 Fact Sheet, February 2010 (PDF, 2 pp, 97K)

OU2 Community Involvement Plan, January 2010 (PDF, 20 pp, 567K)

Remedial Investigation Report - Operable Unit 2, December 2009 (PDF, 180 pp, **18.8MB**)

Top of Page

Contacts

EPA

General mailbox for soil sampling results:
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Or visit our information centers at:

Valdez-Perry Library
4690 Vine Street
Denver, CO 80216
720-865-0300

EPA Superfunds Records Center
1595 Wynkoop Street
Denver, CO 80202-1129
303-312-6473
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Commented [P3]: Check w/Fonda as to who the CIC for CDPHE is for VB/I-70.

Top of Page

Photo/Video Gallery

Click on a thumbnail below to view the full size image.

[Top of Page](#)

Links

[ATSDR Public Health Assessment for VB/I-70](#)

[City of Denver Site Assessment & Cleanup page for VB/I-70](#)

[Top of Page](#)
